

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/013657

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 F01D17/16 F01D5/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/061249 A1 (CAUBET JEAN-PIERRE ET AL) 23 May 2002 (2002-05-23)	1,2,6-8
Y	figures 1-3	5
X	US 4 995 786 A (WHEELER ET AL) 26 February 1991 (1991-02-26)	1-3,6-8
X	US 4 172 361 A (KRONOGARD, SVEN-OLOF) 30 October 1979 (1979-10-30)	1,3,6-8
Y	EP 0 441 097 A (UNITED TECHNOLOGIES CORPORATION) 14 August 1991 (1991-08-14) column 2, line 16 - line 24 column 7, line 6 - line 15 figures 5-7	5
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

16 March 2005

Date of mailing of the international search report

31/03/2005

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Angelucci, S

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/013657

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 199 50 227 A1 (VOITH HYDRO GMBH & CO.KG) 16 November 2000 (2000-11-16) figures -----	1-3,5-8

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/EP2004/013657

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002061249	A1	23-05-2002	FR 2814205 A1 CA 2357176 A1 EP 1188903 A1 JP 2002130189 A	22-03-2002 18-03-2002 20-03-2002 09-05-2002
US 4995786	A	26-02-1991	NONE	
US 4172361	A	30-10-1979	SE 410331 B DE 2743111 A1 FR 2365692 A1 GB 1566630 A IT 1089890 B JP 53044711 A SE 7610577 A	08-10-1979 30-03-1978 21-04-1978 08-05-1980 18-06-1985 21-04-1978 25-03-1978
EP 0441097	A	14-08-1991	US 5088892 A DE 69026811 D1 DE 69026811 T2 EP 0441097 A1 JP 3179122 B2 JP 4214904 A	18-02-1992 05-06-1996 12-09-1996 14-08-1991 25-06-2001 05-08-1992
DE 19950227	A1	16-11-2000	NONE	